

What is claimed is:

1. A network communication device, comprising:

a first interface for exchanging information with a network device;

a second interface connected to the first interface for establishing a connection with the network device; and

middleware logic for coordinating information exchange between the first interface and the second interface,

wherein the second interface comprises a clock.

2. The device of claim 1, wherein the first interface transmits a first message to the network device, the first message including an inquiry access code.

3. The device of claim 2 wherein the inquiry access code comprises an access code of the network device.

4. The device of claim 3, wherein the first interface receives a second message from the network device, the second message including a first clock value and a first address corresponding to the network device.

5. The device of claim 4, wherein the first interface delivers the second clock value and the second address to the second interface via the middleware logic.

6. The device of claim 4, wherein the first interface transmits a third message to the network device, the third message including a second clock value corresponding to the second interface and a second address corresponding to the second interface.

7. The device of claim 6, wherein the second interface determines a Channel Hopping Pattern (CHP) of the network device based on the first clock value and the first address corresponding to the network device.

8. The device of claim 1, wherein the first interface receives a first message from a network device, the first message including an inquiry access code.

9. The device of claim 8, wherein the inquiry access code comprises an access code of the network device.

10. The device of claim 9, wherein the first interface transmits a second message to the network device, the second message including a first clock value corresponding to the clock of the second interface and a first address corresponding to the second interface.

11. The device of claim 10, wherein the first interface receives a third message from the network device, the third message comprising a second clock value corresponding to the network device and a second address corresponding to the network device.

12. The device of claim 11, wherein the first clock value is modified based on the second clock value.

13. The device of claim 11, wherein the first interface delivers the second clock value and the second address to the second interface via the middleware logic.

14. The device of claim 13, wherein the second interface determines a Channel Hopping Pattern (CHP) of the network device based on the second clock value and the second address corresponding to the network device.

15. The device of claim 14, wherein the second interface tunes to the network device based on the CHP of the network device.

16. A method of establishing a connection with a network device while in a Scan state and Connect state simultaneously, the method comprising:

receiving an inquiry message at a first interface from the network device, said inquiry message including an inquiry access code;

transmitting a response message from the first interface to the network device, said response message including a first clock value and a first address, wherein the first clock value and the first address correspond to a second interface, said second interface being logically connected to the first interface;

receiving a data packet at the first interface from the network device, said data packet comprising a second clock value corresponding to the network device and a second address corresponding to the network device;

sending the second clock value and the second address to the second interface whereby a connection is established with the network device via the second interface.

17. The method of claim 16 further comprising:

adjusting the first clock value based on the second clock value;

deriving a Channel Hopping Pattern (CHP) of the network device based on the second clock value and the second address; and

tuning the second interface to the CHP of the network device.

18. The method of claim 16, wherein the network device is a Bluetooth device.

19. A method of establishing a connection with a network device while in a Scan state and Connect state simultaneously, the method comprising:

receiving an inquiry message at a first interface from a second interface, said inquiry message including an inquiry access code;

transmitting a response message from the first interface to the second interface, said response message including a first clock value and a first address, wherein the first clock value

and the first address correspond to a third interface, said third interface being logically connected to the first interface;

receiving a data packet at the first interface from the second interface, the data packet comprising a second clock value and a second address, wherein the second clock value and the second address correspond to a fourth interface, said fourth interface being logically connected to the second interface;

sending the second clock value and the second address to the third interface whereby a connection is established with the fourth interface via the third interface.

20. The method of claim 19 further comprising:

adjusting the first clock value based on the second clock value; and

deriving a Channel Hopping Pattern (CHP) of the third interface based on the second clock value and the second address.

21. A method of establishing a connection with a network device while in a Scan state and Connect state simultaneously, the method comprising:

sending an inquiry message from a first interface to the network device, said inquiry message including an inquiry access code;

receiving a response message at the first interface from the network device, said response message including a first clock value and a first address, wherein the first clock value and the first address correspond to the network device;

sending the first clock value and first address to a second interface, wherein the second interface is logically connected to the first interface;

sending a data packet to the network device, said data packet comprising a second clock value and a second address, wherein the second clock value and the second address correspond to the second interface and wherein a connection is established with the network device via the second interface.

22. The method of claim 21 further comprising:

deriving a Channel Hopping Pattern (CHP) of the network device based on the second clock value and the second address.

23. The method of claim 21, wherein the network device is a Bluetooth device.

24. A computer readable medium having computer executable instructions for performing a method of establishing a connection with a network device while in a Scan state and Connect state simultaneously, the method comprising:

receiving an inquiry message at a first interface from the network device, said inquiry message including an inquiry access code;

transmitting a response message from the first interface to the network device, said response message including a first clock value and a first address, wherein the first clock value and the first address correspond to a second interface, said second interface being logically connected to the first interface;

receiving a data packet at the first interface from the network device, said data packet comprising a second clock value corresponding to the network device and a second address corresponding to the network device;

sending the second clock value and the second address to the second interface whereby a connection is established with the network device via the second interface.

25. The computer readable medium having computer executable instructions for performing a method of establishing a connection with a network device while in a Scan state and Connect state simultaneously of claim 24, the method further comprising:

adjusting the first clock value based on the second clock value;

deriving a Channel Hopping Pattern (CHP) of the network device based on the second clock value and the second address; and

tuning the second interface to the CHP of the network device.



26. The computer readable medium of claim 24, wherein the network device is a Bluetooth device.

27. A computer readable medium having computer-executable instructions for performing a method of establishing a connection with a network device while in a Scan state and Connect state simultaneously, the method comprising:

receiving an inquiry message at a first interface from a second interface, said inquiry message including an inquiry access code;

transmitting a response message from the first interface to the second interface, said response message including a first clock value and a first address, wherein the first clock value and the first address correspond to a third interface, said third interface being logically connected to the first interface;

receiving a data packet at the first interface from the second interface, the data packet comprising a second clock value and a second address, wherein the second clock value and the second address correspond to a fourth interface, said fourth interface being logically connected to the second interface;

sending the second clock value and the second address to the third interface whereby a connection is established with the fourth interface via the third interface.

28. The computer readable medium having computer-executable instructions for performing a method of establishing a connection with a network device while in a Scan state and Connect state simultaneously of claim 27, the method further comprising:

adjusting the first clock value based on the second clock value; and

deriving a Channel Hopping Pattern (CHP) of the third interface based on the second clock value and the second address.

29. A computer readable medium having computer-executable instructions for performing a method of establishing a connection with a network device while in a Scan state and Connect state simultaneously, the method comprising:

sending an inquiry message from a first interface to the network device, said inquiry message including an inquiry access code;

receiving a response message at the first interface from the network device, said response message including a first clock value and a first address, wherein the first clock value and the first address correspond to the network device;

sending the first clock value and first address to a second interface, wherein the second interface is logically connected to the first interface;

sending a data packet to the network device, said data packet comprising a second clock value and a second address, wherein the second clock value and the second address correspond to the second interface whereby a connection is established with the network device via the second interface.

30. The computer readable medium having computer-executable instructions for performing a method of establishing a connection with a network device while in a Scan state and Connect state simultaneously of claim 29, the method further comprising:

deriving a Channel Hopping Pattern (CHP) of the network device based on the second clock value and the second address.

31. The computer readable medium of claim 29, wherein the network device is a Bluetooth device.